INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We make Indiana a cleaner, healthier place to live.

Joseph E. Kernan
Governor

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Commissioner

100 North Senate Avenue
P.O. Box 6015
Indianapolis, Indiana 46206-6015
(317) 232-8603
(800) 451-6027
www.in.gov/idem

March 24, 2004

TO: Interested Parties / Applicant

RE: Globe Valve, Div of Gerber Plumbing Fixtures / 015-18470-00011

FROM: Paul Dubenetzky
Chief, Permits Branch
Office of Air Quality

Notice of Decision: Approval - Registration

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 4-21.5-3-4(d) this order is effective when it is served. When served by U.S. mail, the order is effective three (3) calendar days from the mailing of this notice pursuant to IC 4-21.5-3-2(e).

If you wish to challenge this decision, IC 4-21.5-3-7 requires that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Room 1049, Indianapolis, IN 46204, **within eighteen (18) calendar days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

(1) the date the document is delivered to the Office of Environmental Adjudication (OEA);
(2) the date of the postmark on the envelope containing the document, if the document is mailed to OEA by U.S. mail; or
(3) The date on which the document is deposited with a private carrier, as shown by receipt issued by the carrier, if the document is sent to the OEA by private carrier.

The petition must include facts demonstrating that you are either the applicant, a person aggrieved or adversely affected by the decision or otherwise entitled to review by law. Please identify the permit, decision, or other order for which you seek review by permit number, name of the applicant, location, date of this notice and all of the following:

(1) the name and address of the person making the request;
(2) the interest of the person making the request;
(3) identification of any persons represented by the person making the request;
(4) the reasons, with particularity, for the request;
(5) the issues, with particularity, proposed for considerations at any hearing; and
(6) identification of the terms and conditions which, in the judgment of the person making the request, would be appropriate in the case in question to satisfy the requirements of the law governing documents of the type issued by the Commissioner.

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178. Callers from within Indiana may call toll-free at 1-800-451-6027, ext. 3-0178.

Enclosures
FN-REGIS.dot 9/16/03

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
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Frank O'Bannon
Governor

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Commissioner

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March 24, 2004

Mr. Ted Catino
Globe Valve, Div. Of Gerber Plumbing Fixtures
1514 West Washington Street
Delphi, IN 46923

Re: Registration No.:
015-18470-00011

Dear Mr. Catino:

The application from Globe Valve, Div. Of Gerber Plumbing Fixtures, received on February 2, 2004, has been reviewed. Based on the data submitted and the provisions in 326 IAC 2-5.5, it has been determined that the following emission units, to be located at 1514 West Washington Street, Delphi, Indiana, are classified as registered:

(a) One (1) natural gas-fired boiler, identified as B-1, with a maximum heat input capacity of 16.4 mmBtu/hr, exhausting to Stack S-1, installed in 1969.

(b) One (1) natural gas-fired boiler, identified as B-2, with a maximum heat input capacity of 4.1 mmBtu/hr, exhausting to Stack S-2, installed in 1969.

(c) One (1) natural gas-fired boiler, identified as B-3, with a maximum heat input capacity of 8.2 mmBtu/hr, exhausting to Stack S-3, installed in 1950.

The following conditions shall be applicable:

(1) Pursuant to 326 IAC 5-1-2 (Opacity Limitations) except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following:

(a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of 15 minutes (60 readings) in a 6-hour period as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor in a six (6) hour period.

(2) Pursuant to 326 IAC 6-2-3(b), the PM from each of the 4.1, 8.2, and 16.4 million British thermal units per hour boilers, constructed and in operation before June 8, 1972, shall not exceed 0.6212 pounds per million British thermal units of heat input.

(3) Any change or modification that may increase the potential to emit of a single Hazardous Air Pollutant (HAP) to 10 tons per year or greater, or that of Volatile Organic Compounds (VOC) or any combination of HAPs to 25 tons per year or greater, shall require prior approval of the Office of Air Quality (OAQ).

This registration a new registration issued to this source. The source had previously been operating under a Part 70 Operating permit. The source may operate according to 326 IAC 2-5.5.

An authorized individual shall provide an annual notice to the Office of Air Quality that the source is in operation and in compliance with this registration pursuant to 326 IAC 2-5.5-4(a)(3). The annual notice shall be submitted to:

Compliance Data Section
Office of Air Quality
100 North Senate Avenue
P.O. Box 6015
Indianapolis, IN 46206-6015

no later than March 1 of each year, with the annual notice being submitted in the format attached.

An application or notification shall be submitted in accordance with 326 IAC 2 to the Office of Air Quality (OAQ) if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source.

Sincerely,

Original Signed by Paul Dubenetzky

Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

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cc: File - Carroll County
Carroll County Health Department
Air Compliance – Dave Rice
Permit Tracking
Compliance Data Section

Registration
Annual Notification

This form should be used to comply with the notification requirements under 326 IAC 2-5.5-4(a)(3).

Company Name: Globe Valve, Div. Of Gerber Plumbing Fixtures
Address: 1514 West Washington Street
City: Delphi, IN 46923
Authorized individual:
Phone #:
Registration #: 015-18470-00011

I hereby certify that **Globe Valve, Div. Of Gerber Plumbing Fixtures**, is still in operation and is in compliance with the requirements of Registration No. **015-18470-00011**.

Name (typed):
Title:
Signature:
Date:

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a Registration

Source Background and Description

Source Name:	**Globe Valve, Division of Gerber Plumbing Fixtures**
Source Location:	**1514 West Washington Street, Delphi, IN 46923**
County:	**Carroll**
SIC Code:	**3432**
Registration No.:	**015-18470-00011**
Permit Reviewer:	**Madhurima D. Moulik**

The Office of Air Quality (OAQ) has reviewed an application from Globe Valve, Division of Gerber Plumbing Fixtures relating to the construction and operation of three (3) boilers.

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units and pollution control devices:

(a) One (1) natural gas-fired boiler, identified as B-1, with a maximum heat input capacity of 16.4 mmBtu/hr, exhausting to Stack S-1, installed in 1969.
(b) One (1) natural gas-fired boiler, identified as B-2, with a maximum heat input capacity of 4.1 mmBtu/hr, exhausting to Stack S-2, installed in 1969.
(c) One (1) natural gas-fired boiler, identified as B-3, with a maximum heat input capacity of 8.2 mmBtu/hr, exhausting to Stack S-3, installed in 1950.

Unpermitted Emission Units and Pollution Control Equipment

There are no unpermitted facilities operating at this source during this review process.

Existing Approvals

The source has been operating under previous approvals including, but not limited to, the following:

(a) Part 70 permit No. T015-7521-00011, issued on March 11, 1999.

This source was involved in brass foundry and plating operations, permitted under T015-7521-00011. All emission units, except for three (3) boilers, have ceased operation as of August 2003. Therefore, this source, which was previously a Title V source, will be issued a registration.

Enforcement Issue

There are no enforcement actions pending.

Recommendation

The staff recommends to the Commissioner that the operation be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

A complete application for the purposes of this review was received on February 2, 2004.

Emission Calculations

See Appendix A of this document for detailed emission calculations.

Potential to Emit of the Source Before Controls

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U.S. EPA, the department, or the appropriate local air pollution control agency."

Pollutant	Potential to Emit (tons/yr)
PM	0.2
PM-10	0.9
SO_2	Negligible
VOC	12.6
CO	0.7
NO_x	10.5

HAPs	Potential to Emit (tons/yr)
Single HAP	< 10
Total	< 25

(a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of pollutants are less than 25 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-5.5. A registration will be issued.

County Attainment Status

The source is located in Carroll County.

Pollutant	Status
PM-10	attainment
SO_2	attainment
NO_2	attainment
Ozone	attainment
CO	attainment
Lead	attainment

(a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Carroll County has been designated as attainment or unclassifiable for ozone. Therefore, VOC emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability for the source section.

(b) Carroll County has been classified as attainment or unclassifiable for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability for the source section.

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This existing source is not subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

(a) each criteria pollutant is less than 100 tons per year,
(b) a single hazardous air pollutant (HAP) is less than 10 tons per year, and

(c) any combination of HAPs is less than 25 tons per year.

Federal Rule Applicability

(a) The 16.4 mmBtu/hr natural gas-fired boiler is not subject to the requirements of the New Source Performance Standard, 326 IAC 12, (40 CFR 60.40, Subpart Dc), because construction commenced prior to June 9, 1989.

(b) The 8.2 mmBtu/hr and 4.1 mmBtu/hr natural gas-fired boilers are not subject to the requirements of New Source Performance Standard, 326 IAC 12, (40 CFR 60.40, Subpart Dc), because construction commenced before June 9, 1989, and the heat input capacities are below the 10 mmBtu/hr applicability threshold.

(c) There are no National Emission Standards for Hazardous Air Pollutants (NESHAP)(326 IAC 14, 20 and 40 CFR Part 61, 63) applicable to this source.

State Rule Applicability – Entire Source

326 IAC 2-6 (Emission Reporting)

This source is located in Carroll County and the potential to emit of all criteria pollutants are less than one hundred (100) tons per year. Therefore, 326 IAC 2-6 does not apply.

326 IAC 2-2 (Prevention of Significant Deterioration)

The potential to emit of all criteria pollutants from this source are less than 250 tons per year, and it is not one of the twenty-eight (28) listed source categories. Therefore, 326 IAC 2-2 does not apply.

326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))

The operation of this source will emit less than 10 tons per year of a single HAP or 25 tons per year of a combination of HAPs. Therefore, 326 IAC 2-4.1 does not apply.

326 IAC 5-1 (Visible Emissions Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in the permit:

(a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

State Rule Applicability – Individual Facilities

326 IAC 6-3-2 (Process Operations)

Sources of indirect heating are exempt from this rule. Therefore, 326 IAC 6-3-2 does not apply to the three (3) boilers at this facility.

326 IAC 6-2 (Particulate Emissions Limitations for Sources of Indirect Heating)

Each boiler was constructed and in operation before September 21, 1983. Therefore, boilers B-1, B-2, and B-3 are subject to the requirements of 326 IAC 6-2-3.

Pursuant to 326 IAC 6-2-3(a), for each boiler:

$$Pt = (C * a * h) / (76.5 * Q^{0.75} * N^{0.25})$$

where: Pt - PM limit in pounds per MMBtu
C - Maximum ground level concentration, 50 $\mu g/m^3$
a - Plume rise factor, 0.67
h - Stack height in feet
Q - total source permitted capacity in MMBtu/hr
N - Number of stacks

The three (3) boilers were all constructed and in operation before June 8, 1972. Therefore, pursuant to 326 IAC 6-2-3(b), Q, N, and h shall include the parameters for all facilities in operation on June 8, 1972.

Therefore, Q = 28.7 mmBtu/hr

N = 3

$$h = \sum_{i=1}^{N} (H_i \times pa_i \times Q) / \sum_{I=1}^{N} (pa_i \times Q)$$

where:

H_i = Height of each stack
pa = actual emission rate in lb/mmBtu using AP-42 emission factors
From AP-42, pa = 12.0 lb/mmcf for the 4.1 and 8.2 mmBtu/hr boilers
Also, pa = 13.7 lb/mmcf for the 16.4 mmBtu/hr boiler

Therefore, h = 23.15 ft

For each boiler

$P_t = (50 * 0.67 * 23.15) / (76.5 * (28.7)^{0.75} * (3)^{0.25})$

P_t = 0.6212 lbs/mmBtu

The potential to emit of each of the three (3) boilers is less than 0.6212 lb/mmBtu. Therefore, the boilers are in compliance with 326 IAC 6-2-3.

326 IAC 8-1-6 (VOC Rules: General Reduction Requirements)

This source does not have any emission units with potential VOC emissions of greater than 25 tons per year. Therefore, 326 IAC 8-1-6 does not apply.

Conclusion

The construction and operation of the three (3) boilers at this source shall be subject to the conditions of the Registration No.: 089-18470-00489.

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Small Industrial Boiler 16.4 mmBtu/hr

Company Name: **Globe Valve, Div. Of Gerber Plumbing Fixtures**
Address City IN Zip: **1514 West Washington, Delphi, IN 46923**
Permit Number: **015-18470**
Plt ID: **015-00011**
Reviewer: **Madhurima D. Moulik**
Date: **12-Feb-04**

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
16.4	143.7

	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.1	0.5	0.0	7.2	0.4	6.0

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMB
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-0(
(SUPPLEMENT D 3/98)
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

See page 2 for HAPs emissions calculations.

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Small Industrial Boiler
HAPs Emissions

Company Name: Globe Valve, Div. Of Gerber Plumbing Fixtures
Address City IN Zip: 1514 West Washington, Delphi, IN 46923
Permit Number: 015-18470
Plt ID: 015-00011
Reviewer: Madhurima D. Moulik
Date: 12-Feb-04

	HAPs - Organics				
	Benzene	Dichlorobenze	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	1.508E-04	8.620E-05	5.387E-03	1.293E-01	2.442E-04

	HAPs - Metals				
	Lead	Cadmium	Chromium	Manganese	Nickel
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Potential Emission in tons/yr	3.592E-05	7.902E-05	1.006E-04	2.730E-05	1.508E-04

Methodology is the same as page 1.

The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Small Industrial Boiler 8.2 mmBtu/hr

Company Name: **Globe Valve, Div. Of Gerber Plumbing Fixtures**
Address City IN Zip: **1514 West Washington, Delphi, IN 46923**
Permit Number: **015-18470**
Plt ID: **015-00011**
Reviewer: **Madhurima D. Moulik**
Date: **12-Feb-04**

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
8.2	71.8

	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.1	0.3	0.0	3.6	0.2	3.0

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMB
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-0(
(SUPPLEMENT D 3/98)
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

See page 2 for HAPs emissions calculations.

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Small Industrial Boiler 8.2 mmBtu/hr
HAPs Emissions

Company Name: Globe Valve, Div. Of Gerber Plumbing Fixtures
Address City IN Zip: 1514 West Washington, Delphi, IN 46923
Permit Number: 015-18470
Plt ID: 015-00011
Reviewer: Madhurima D. Moulik
Date: 12-Feb-04

	HAPs - Organics				
	Benzene	Dichlorobenze	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	7.542E-05	4.310E-05	2.694E-03	6.465E-02	1.221E-04

	HAPs - Metals				
	Lead	Cadmium	Chromium	Manganese	Nickel
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Potential Emission in tons/yr	1.796E-05	3.951E-05	5.028E-05	1.365E-05	7.542E-05

Methodology is the same as page 1.

The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Small Industrial Boiler 4.1 mmBtu/hr

Company Name: **Globe Valve, Div. Of Gerber Plumbing Fixtures**
Address City IN Zip: **1514 West Washington, Delphi, IN 46923**
Permit Number: **015-18470**
Plt ID: **015-00011**
Reviewer: **Madhurima D. Moulik**
Date: **12-Feb-04**

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
4.1	35.9

	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.0	0.1	0.0	1.8	0.1	1.5

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMB
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-0(
(SUPPLEMENT D 3/98)
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

See page 2 for HAPs emissions calculations.

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Small Industrial Boiler 4.1 mmBtu/hr
HAPs Emissions

Company Name: Globe Valve, Div. Of Gerber Plumbing Fixtures
Address City IN Zip: 1514 West Washington, Delphi, IN 46923
Permit Number: 015-18470
Plt ID: 015-00011
Reviewer: Madhurima D. Moulik
Date: 12-Feb-04

	HAPs - Organics				
	Benzene	Dichlorobenze	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	3.771E-05	2.155E-05	1.347E-03	3.232E-02	6.106E-05

	HAPs - Metals				
	Lead	Cadmium	Chromium	Manganese	Nickel
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Potential Emission in tons/yr	8.979E-06	1.975E-05	2.514E-05	6.824E-06	3.771E-05

Methodology is the same as page 1.

The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.